

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :  
Shanler et al. : Confirmation No.: 4999  
Serial No. 10/763,807 : Group Art Unit: 1617  
Filed: January 22, 2004 : Examiner: Cotton, Abigail Manda  
For: METHOD AND THERAPEUTIC/COSMETIC TOPICAL COMPOSITIONS  
FOR THE TREATMENT OF ROSACEA AND SKIN ERYTHEMA USING A1-  
ADRENORECEPTOR AGONISTS

**DECLARATION OF DR. ANDREW ONDO**

Dear Madam:

I, Dr. Andrew L. Ondo, declare as follows:

1. I am an inventor on pending U.S. Application No. 10/763,807 entitled "Method and Therapeutic/Cosmetic Topical Compositions for the Treatment of Rosacea and Skin Erythema using A1-Adrenoreceptor Agonists" describing  $\alpha_1$  adrenoreceptor agonists, compositions thereof, and their use for the treatment of skin erythema, including rosacea.
2. I received an M.D. degree from the Medical College of Ohio in 1993, and completed an internship in Internal medicine at the University Hospitals of Cleveland Medical Center from July 1, 1993 to June 30, 1994, and completed my residency in Dermatology at the State University of New York at Buffalo Medical Center Program from July 1, 1994 to June 30, 1997. From approximately September 1997 to December 2005, I was in solo, private clinical practice in Las Cruces, New Mexico. And in January 2006, I continued my private practice with Las Cruces Dermatology Associates in Las Cruces, New Mexico, which I maintain today.
3. I am a co-founder of Aspect Pharmaceuticals LLC ("Aspect"), which is the assignee of the patent application identified above.
4. Beginning in December 2001, in order to test a hypothesis that  $\alpha_1$  adrenoreceptor agonists may be effective in alleviating the redness associated with erythemic skin, I suggested to patients to consider topically applying Afrin® Nasal Spray to their reddened skin, and I continued to suggest this therapy to patients through May 2006. Specifically, I suggested to the patients to spray the Afrin Nasal Spray onto a water-moistened towel and apply as a compress for a few minutes to the affected area of the skin once a day, and to return for clinical evaluation. In all, I suggested this therapy to forty-nine (49) patients with erythematotelangiectatic rosacea ("ETR") during the period between December 2001 to May 2006. Of those patients, only seven (7) patients tried the suggested experimental therapy, which is discussed below. In addition, six (6) consultation letters were sent, as

required, to referring physicians, which discussed the potential therapeutic regimen I suggested their patients use, which are also discussed below.

5. Afrin Nasal Spray is a solution containing 0.05% oxymetazoline hydrochloride, an  $\alpha_1$  adrenoreceptor agonist as its active ingredient. Afrin Nasal Spray also includes benzalkonium chloride, edentate disodium, polyethylene glycol 1450, povidone, propylene glycol, sodium phosphate dibasic, sodium phosphate monobasic, and water as inactive ingredients.
6. On February 20, 2002, I suggested that to a patient ("Patient No. 1") to try the experimental therapy. Patient No. 1 returned to the office for a follow-up evaluation on February 28, 2002, and reported that she saw no improvement in the redness of the skin; however I was not able to clinically evaluate Patient No. 1 because the patient stopped therapy before the follow-up evaluation.
7. On March 13, 2002, I suggested to a patient ("Patient No. 2") to try the experimental therapy. Patient No. 2 verbally reported observing noticeable improvement and indicated that she stopped all other treatments. Patient No. 2 returned to the office for a follow-up evaluation on June 18, 2002, where I noticed marked improvement in the macular facial erythema/ETR. I instructed Patient No. 2 to continue the experimental therapy. On August 19, 2002, Patient No. 2 returned to the office for another follow-up evaluation, where I noticed sustained improvement in the macular facial erythema.
8. On March 18, 2002, I sent a consultation letter to a referring physician ("Consultation Letter No. 1"), which informed the referring physician that I suggested the patient try the experimental therapy for the patient's ETR. To my knowledge, the patient did not try the therapy, and therefore I was not able to observe any potential clinical outcomes.
9. On June 18, 2002, I sent a consultation letter to a referring physician ("Consultation Letter No. 2"), which informed the referring physician that I suggested the patient try the experimental therapy for the patient's ETR. To my knowledge, the patient did not try the therapy, and therefore I was not able to observe any potential clinical outcomes.
10. On June 24, 2002, I sent a consultation letter to a referring physician ("Consultation Letter No. 3"), which informed the referring physician that I suggested the patient try the experimental therapy for the patient's ETR. To my knowledge, the patient did not try the therapy, and therefore I was not able to observe any potential clinical outcomes.
11. On October 7, 2002, I sent a consultation letter to a referring physician ("Consultation Letter No. 4"), which informed the referring physician that I suggested the patient try the experimental therapy for the patient's ETR. To my knowledge, the patient did not try the therapy, and therefore I was not able to observe any potential clinical outcomes.
12. On January 10, 2003, I suggested to a patient ("Patient No. 3") to try the experimental therapy. On February 13, 2003, Patient No. 3 returned to the office for a follow-up evaluation and reported that she saw no improvement in the redness of the skin; however I was not able to clinically evaluate Patient No. 3 because the patient stopped therapy before the follow-up evaluation.
13. On January 22, 2004, the above-referenced patent application, U.S. Application No. 10/763,807 entitled "Method and Therapeutic/Cosmetic Topical Compositions for the

Treatment of Rosacea and Skin Erythema using A1-Adrenoreceptor Agonists”, was filed identifying me and Dr. Stuart D. Shanler as inventors.

14. On December 7, 2005, I suggested to a patient with ETR (“Patient No. 4”) to try the experimental therapy. I took pretreatment photos of the affected area, and on January 9, 2006 Afrin Nasal Spray was applied directly to the affected area of the skin using a soaked pad. Photos of the affected area were taken at one (1) and three (3) hours post-treatment. At one (1) hour post-treatment I noted approximately a fifty percent (50%) improvement in erythema on the right side of the nose and approximately a thirty to fifty percent (30-50%) improvement in erythema on the left side of the nose compared to baseline. At three (3) hours post-treatment, I noted approximately 30-50% improvement in the erythema on both sides of the nose. Patient No. 4 continued daily treatment, and returned for a follow-up evaluation on January 17, 2006 about five (5) hours post-treatment. I noted approximately thirty to fifty percent improvement in erythema on the left side of the nose and approximately fifty to sixty percent improvement in erythema on the right side of the nose. Patient No. 4 reported no observable side effects.
15. On January 3, 2006, I suggested to a patient with macular erythema with fixed telangiectasias (“Patient No. 5”) to try the experimental therapy. I took pretreatment photos of the affected area, and on January 3, 2006 Afrin Nasal Spray was applied directly to the affected area of the skin using a soaked pad. Photos of the affected area were taken at one (1) and two (2) hours post-treatment and one (1) day post-treatment. I did not observe any noticeable improvement in erythema over baseline. Patient No. 5 reported no observable side effects.
16. On February 20, 2006, I suggested to a patient with ETR (“Patient No. 6”) to try the experimental therapy, and I took pretreatment photos of the affected area. On February 27, 2006 Afrin Nasal Spray was applied directly to the affected area of the skin using a soaked pad. Photos of the affected area were taken at pretreatment and one (1) and three (3) hours post-treatment. At one (1) hour post-treatment I noted approximately a thirty to forty percent (30-40%) improvement in erythema, more obvious on the cheeks than nose, and at three (3) hours post-treatment, I noted approximately a fifty to seventy percent (50-70%) improvement in erythema, more obvious on the cheeks than nose. Patient No. 6 continued daily treatment, and returned for a follow-up evaluation on January 28, 2006 about six (6) hours post-treatment. I noted approximately fifty to seventy percent (50-70%) improvement in erythema, more obvious on the cheeks than nose. Patient No. 6 continued daily therapy and returned for evaluation and photos on March 13, 2006 (two weeks after initiation of therapy) and on April 10, 2006 (six weeks after initiation of therapy). I noted sustained improvement of the erythema. Patient No. 6 reported that stinging and burning, usual symptoms of Patient No. 6’s disease, were diminished upon application of the oxymetazoline.
17. On April 26, 2006, I suggested to a patient with ETR (“Patient No. 7”) to try the experimental therapy. Patient No. 7 indicated that the erythema was exacerbated by the intake of alcoholic beverages. I took pretreatment photos of the affected area, and on May 3, 2006 Afrin Nasal Spray was applied directly to the affected area of the skin using a soaked pad. Patient No. 7 consumed one (1) alcoholic beverage. Photos of the affected area were taken at one (1) and two (2) hours post-alcohol consumption. I noted some improvement in the erythema. On May 10, 2006 Patient No. 7 returned for a follow-up

visit. Photos of the affected areas were taken pretreatment and one (1) hour following alcohol consumption, which were compared to the treatment photos of May 3, 2006. Patient No. 7 had no side effects. In addition, I sent a consultation letter to the referring physician ("Consultation Letter No. 5"), which informed the referring physician that I was going to try the experimental therapy for the patient's rosacea.

18. On November 13, 2006, I sent a consultation letter to a referring physician ("Consultation Letter No. 6"), which informed the referring physician that I suggested the patient try the experimental therapy for the patient's ETR, as I had seen some improvement in patients using this therapy. To my knowledge, the patient did not try the therapy, and therefore I was not able to observe any potential clinical outcomes.
19. As noted above, following each of the topical applications of the experimental therapy described above, I performed at least one follow-up visit with the patient to determine the effectiveness of the 0.05% oxymetazoline hydrochloride on ETR, as well as to observe the length or extent of its effectiveness on ETR.
20. As noted above, for those patients that were referred to me for dermatologic consultation, I advised the referring physician of the suggested experimental therapy in a consultation letter, as is required. The referring physicians are bound by doctor-patient confidentiality.
21. The patients described above were informed that the therapy was experimental. All patient medical records have been held in confidence by me. Patients did not incur an additional charge for the experimental therapy, and I did not sell or offer for sale Afrin Nasal Spray or any composition or formulation containing oxymetazoline or other  $\alpha_1$  adrenoreceptor agonist for the purpose of treating skin erythema or any other condition.
22. I declare further that all statements made herein of my own knowledge are true and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application and any patent issuing thereon.

*[Remainder of page intentionally left blank.]*

Date: July 17, 2007

  
Dr. Andrew L. Ondo

**ACKNOWLEDGMENT**

STATE OF New Mexico )  
COUNTY OF Dona Ana ) SS.

On this 17<sup>th</sup> day of July, 2007, before me, a Notary Public, personally appeared Andrew Ondo, to me known to be the person named in and who executed the above instrument, and acknowledged to me that he executed the same for the uses and purposes therein set forth.

S E A L

Notary Public   
My commission expires 4/5/2008

